

ABSTRACT OF THE DISCLOSURE

A color imaging apparatus includes a CCD imaging device having interline transfer charge transfer paths adapted for interlaced reading and a Bayer-arranged color filter. The apparatus can be put in either of normal shooting mode and high-sensitivity shooting mode. In the high-sensitivity mode, pixel signals from two pixels arranged in the vertical direction in each photosensitive CCD array are transferred by a corresponding vertical transfer path at two times the rate in the normal mode to a horizontal transfer path where they are added together. A line of pixel signals from the horizontal transfer path is output to a preprocess circuit where pixel signals separated by one pixel in the horizontal direction are added together. This process produces a line of image signal.